99C109

4.5 PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: Napa River Watershed Stewardship Year 2
Applicant Name: Napa County Resource Conservation District
Mailing Address: 1303 Jefferson Street, Suite 500B
Telephone: 707-252-4188
Fax: 707-252-4219
Email: RCDSTAFF@NAPANET.NET

Amount of funding requested: $191,100 for 1 years

Indicate the Topic for which you are applying (check only one box).

- ☐ Fish Passage/Fish Screens
- ☐ Habitat Restoration
- ☑ Local Watershed Stewardship
- ☐ Water Quality
- ☐ Introduced Species
- ☐ Fish Management/Hatchery
- ☐ Environmental Education

Does the proposal address a specified Focused Action? _____ yes x no

What county or counties is the project located in? Napa County

Indicate the geographic area of your proposal (check only one box):

- ☐ Sacramento River Mainstem
- ☐ Sacramento Trib: _____
- ☐ San Joaquin River Mainstem
- ☐ San Joaquin Trib: _____
- ☐ Delta: _____
- ☐ East Side Trib: _____
- ☐ Suisun Marsh and Bay
- ☒ North Bay/South Bay: _____
- ☐ Landscape (entire Bay-Delta watershed)
- ☐ Other: _____

Indicate the primary species which the proposal addresses (check all that apply):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☐ Winter-run chinook salmon
- ☐ Late-fall run chinook salmon
- ☐ Delta smelt
- ☐ Splittail
- ☐ Green sturgeon
- ☐ Migratory birds
- ☐ Other: _____
- ☐ Spring-run chinook salmon
- ☐ Fall-run chinook salmon
- ☐ Longfin smelt
- ☒ Steelhead trout
- ☐ Striped bass
- ☐ All chinook species
- ☐ All anadromous salmonids

Specify the ERP strategic objective and target (s) that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II:

Identify and priortize essential fish habitats, page 162;facilitate development and implementation of restoration plans,page 162; Determine the abundance and distribution of steelhead populations, page 229; Temperature monitoring and reduction in water temperatures through providing shade, page 64.

I-017144

Indicate the type of applicant (check only one box):

☐ State agency	☐ Federal agency
☐ Public/Non-profit joint venture	☐ Non-profit
☑ Local government/district	☐ Private party
☐ University	☐ Other: _____

Indicate the type of project (check only one box):

☐ Planning	☑ Implementation
☐ Monitoring	☐ Education
☐ Research	

By signing below, the applicant declares the following:

1.) The truthfulness of all representations in their proposal;

2.) The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and

3.) The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

Dennis Bowker

Printed name of applicant

Signature of applicant

Title Page

Project Title: Napa River Watershed Stewardship Year 2

Applicant: Napa County Resource Conservation District
1303 Jefferson Street, Suite 500B
Napa, CA 94559
(707) 252-4188 FAX: (707) 252-4219
102223.2012@compuserve.com

Project Manager/Contact: Dennis Bowker

Type of Organization: Local Government, Special District formed under Division IX of the California Public Resources Code.

Tax Identification Number: 94-1569332

Technical Contact: Dennis Bowker, Project Manager (same address as above)

Participants and Collaborators:

Participants:
Napa County Resource Conservation District

Collaborators:
Local Stewardship Watershed Groups
Napa County Agricultural Commissioner
Napa Sustainable Winegrowing Group
California Department of Fish and Game
California Department of Conservation
Napa County Flood Control and Water Conservation District
Pierce's Disease Task Force
US Environmental Protection Agency
Region II Water Quality Control Board
Private landowners
California Conservation Corps

Executive Summary

Project Title: Napa River Watershed Stewardship Year 2

Applicant Name: Napa County Resource Conservation District

Project Description and Objectives: This project proposal is intended to address a broad range of ecological and biological values in the Napa River watershed, including steelhead and salmon populations, and improved wetlands and floodplain functions. The Napa River Watershed is 426 acres and comprises 48 tributaries feeding the 45-mile long Napa River. The Napa River drains into San Pablo Bay.

Program objectives are to implement the recommendations listed in the Napa River Watershed Owner's Manual, a framework for integrated watershed management of the Napa River watershed. Specifically, this program will address the first six of the nine listed objectives of the management plan: *1) Stabilize streams using natural processes, 2) Promote contiguous habitat, 3) Increase biological diversity, 4) Increase migratory and resident fish habitat, 5) Coordinate natural resource protection and planning, and 6) Encourage local land Stewardship.*

The proposal builds upon the work already completed under the current Napa River Watershed Stewardship CALFED grant. Additional restoration and hydrologic modeling work will be done and, stewardship groups will be supported and initiated. These three separable, but mutually supportive segments, are designed to restore ecological health to the Napa River watershed.

Primary Biological/Ecological Objectives. This program will enhance and restore the following CALFED priority habitats in the Napa River watershed: seasonal wetland and aquatic habitat, instream aquatic habitat, and shaded riverine aquatic habitat. It will do so through development of local partnerships to encourage long-term effective habitat management while reducing conflicts related to those resources. Primary species of concern benefiting from this program are steelhead trout and California Freshwater Shrimp. Currently, habitat for these species is severely degraded due to alterations in stream channel morphology, removal of freshwater and tidal wetlands, and excessive erosion and sediment in the system.

Costs and Third Party Impacts: The proposed program is divided into three separable elements that are intended to support one another. The total anticipated cost of this program is $303,760, of which the amount requested from CALFED is $191,100. The remaining $112,660 will be supplied by the participant and collaborators as matching funds. No third party impacts requiring mitigation are expected with this program.

Applicant Qualifications: The Napa County Resource Conservation District has been operating since 1945 to assist local landowners with natural resource conservation in the District. Employees listed in the proposal are trained in the use of computer modeling, database management, GIS, volunteer monitoring training and organization, landscape architecture, fish habitat assessment and restoration, and watershed stewardship facilitation. The District has developed a training program for other agencies and groups that provides consultation and education in developing and maintaining effective watershed management programs. Among the grants successfully carried out by the District are the following: Dept. of Pesticide Regulation Integrated Pest Management Grant (1997), EPA 205(J) planning grant for Huichica Creek Management Plan (1995), EPA 319 grant for creation of a

watershed stewardship program and Napa River Watershed Owner's Manual (1994).

Monitoring and Data Evaluation: The District has an established monitoring program with protocols, training, and both a relational and GIS database. It has a strong cooperative relationship with regional monitoring programs such as the San Francisco Estuary Institute. The protocols and database already in use will be extended as appropriate to provide tools for the monitoring of restoration projects. Data will be reviewed and evaluated by the District and cooperators on an on-going basis as well as annually by a team comprised of local interest groups and agency personnel. Data will be made available for general distribution through the next edition of the Owner's Manual and via digital formats.

Local Support and CALFED Compatibility: The local community has expressed support for the restoration and maintenance of the ecological health of the Napa River watershed in a variety of ways, including active participation in the creation of the Owner's Manual and the Community Coalition for Floodplain Management, and through votes to establish an erosion control ordinance and parcel tax for watershed management. The District works formally and informally with community partners of varied interests who desire to protect and preserve water quality, aquatic and riverine habitats, and the species they support: the Napa Sustainable Winegrowing Group, Pierce's Disease Task Force, Friends of the Napa River, Napa/Solano Audubon Society, Redwood Ornithological Society, California Dept. of Fish and Game, Napa Valley Steelhead, City and County of Napa, local stewardships and individual landowners, and numerous other state and federal agencies.

Project Description

Proposed Scope of Work: This project is intended to extend the implementation of the recommendations included in the Napa River Watershed Owner's Manual a framework for watershed management in the Napa River Basin. It will address the issues of habitat degradation and depressed populations of steelhead, California Freshwater Shrimp in the Napa River and Marsh, and will enhance and expand riparian, riverine, estuarine, and freshwater aquatic habitats for these species. It will provide services to project collaborators in the form of training, education, computer-assisted design and modeling of enhancement projects, and financial assistance for implementation. It will also provide training in specific project monitoring as well as general watershed monitoring to be included in the database and GIS at the Resource Conservation District (District). Services will be delivered through work with existing and new local tributary Stewardship groups throughout the Napa Valley.

Approach/Tasks/Schedule: The approach to execution of the projects is Stewardship Watershed Management developed at the Napa County Resource Conservation District. The approach emphasizes broad stakeholder involvement; consensus management using interest-based planning; results-based (as opposed to procedure-based) success criteria; and extensive monitoring coupled with flexible management that responds to monitoring feedback. The tasks and their timelines described under each of the three proposal segments (*Habitat Restoration and Assessment, Watershed Computer Modeling and Monitoring,* and *Stewardship Development*) are intended to support the establishment of locally led environmental management that is self-sustaining and coordinated through the uniform guidance of the community's Watershed Owner's Manual.

The approach to implementation is the Stewardship Watershed Management approach developed by the District. It relies on a large degree of participation by landowners and residents of tributary and main stem regions. The Stewardship process has been very successful in developing and supporting local responsibility for natural resource management, with a heavy emphasis on monitoring and adaptive management of the resources based on monitoring feedback. The process has received national recognition, including commendation by the US Senate and the California Legislature. Planning is done using interest-based consensus, with implementation from a wide variety of partners that may vary from one specific project to another. Watershed education exchange typically takes place through existing groups such as neighborhood associations, service clubs, trade groups, and school-related organizations. Project implementation is typically done by the landowner, whether public or private, with support from the District, rather than by the District on behalf of the landowner.
Task 1. Stewardship Watershed Management. The services generated under this segment will address system stress brought about by flow alterations, floodplain changes, channel form changes, elevated water temperature, degraded water quality, undesirable species, undesirable effects of land use practices, historical ecological information, and human disturbance in aquatic systems.
Task Ia: Expand the existing District support for local watershed planning and management by providing direct facilitation and organization help to tributary watershed groups. Increase the number of active stewardships by two of the 48 major inflows to the Napa River.
Task Ib: Provide training to at least one member of each new tributary group in group organization skills, fund raising to help the group become self-supporting, information exchange such as newsletters, meeting management, and project management. This training is in addition to the training available in Task Ic.
Task Ic: Provide training in watershed evaluation and monitoring to the Stewardship groups. Training will include physical stream channel surveying and stream discharge data gathering and assessment based on fluvial geomorphology concepts; watershed permeability and runoff assessment; riparian

habitat assessment and fish habitat surveying based on the Dept. of Fish and Game protocol; and water quality and temperature monitoring.
Task Id: Additional training sessions and follow-up support will be given in implementation techniques for floodplain restoration, exotic species eradication and replacement, aquatic and riparian habitat restoration, and stream bank stabilization methods. These training sessions will be open to all interested parties in the watershed, including county, municipal, and other agency personnel.
Products: Watershed parcel ownership and mailing lists, with initial mailer (month 3); meeting agendas and responsiveness summaries for initial meetings (month 5); training schedules and summaries, with attendance lists (month 6-10); minimum of six draft or concept tributary management plans (month 12); a year-end report with recommendations for adjustments, additions, etc., to the training, and a report on the needs of each group relative to becoming self-funded in the future (month 12).

Task 2. Watershed Computer Modeling and Monitoring.
The District presently coordinates an extensive volunteer monitoring program based on protocols and Quality Assurance Plans developed jointly with other groups: the San Francisco Estuary Institute (SFEI); the Region II Water Quality Control Board; and the Coyote Creek Riparian Station, among others. The program is intended to generate data in a form and presentation that will provide support to other, larger scale programs such as the Regional Monitoring Program (RMP) and the Interagency Ecological Program (IEP), in addition to being available and useful to local neighbors such as the Southern Sonoma County RCD and other North Bay Forum participants. The monitoring program is constructed to be GIS adaptable, in order to present monitoring data spatially as well as temporally. The District presently uses MS Access to enter and store data, and uses pcArc/Info, ArcView, and Spatial Analyst for presentation and analysis. Models in use for watershed planning and management at the District include MIKE 11, an unsteady flow model for river and estuarine channels, and the U.S. Army Corps of Engineers Hydrologic Engineering Center tools HEC-1, HEC-2, and HEC-RAS.

In order to study setback levees and other floodplain restoration measures which will benefit steelhead trout by providing low velocity refugia, a floodplain modeling program will be established. This program will be based on the existing hydraulic model of the Napa River and tributaries developed and maintained by the applicant, which was improved under a previous CALFED grant.
Task IIa:: Using aerial photos, anecdotal evidence, and other information, prepare a historical analysis of flooding patterns for selected stream reaches in the Napa River basin.
Task IIb: Extend existing program of measurement of discharge in river and tributaries, including floodplain areas as far as possible.
Task IIc: Using appropriate ground surveys by RCD staff, together with a proposed DEM to be developed for the Hopper Creek/Napa River area by a local agency, add floodplain areas to applicant's existing model. Quasi-two dimensional representation of floodplains will be used where appropriate. Mike 11-GIS will be used where appropriate.
Task IId: Identify restoration sites to be modeled and assemble calibration data and other information required to carry out modeling.
Task IIe: Calibrate and verify model.
Task IIf: Use model to evaluate restoration scenarios at restoration sites.
Task IIg: Using more extensive discharge measurements (Task B), improve rainfall/runoff model of Napa River watershed.
Task IIh On basis of recommendations from the previous CALFED grant, implement measurement program for study of suspended sediment loads in Hopper Creek or other selected tributaries.
Products: enlarged, calibrated MIKE 11 model of the Napa River with tributaries and floodplains (month 9); report outlining results of modeling study of restoration sites (month 12).

Task III: Riparian Habitat Assessment and Restoration. In partnership with other programs in the watershed such as the USDA Wetlands Reserve Program and EQIP and the US FWS Partners for Wildlife, this segment will establish demonstration sites for floodplain wetland restoration; and riparian corridor redevelopment (including exotic species removal) to decrease Pierce's Disease in grapevines. It will also provide support to conduct fisheries habitat assessment and develop demonstrations with willing landowners of spawning habitat restoration and stream restoration using natural processes.

Task IIIa: Expand on selection criteria from work already completed under the current Napa River Watershed Stewardship CALFED for at least two demonstration sites to exhibit floodplain restoration. These criteria were established by a Guidance Committee composed of representatives from watershed stewardship groups, Department of Fish and Game, Pierce's Disease Task Force, Flood Control and Water Conservation District, Napa County Land Trust, Friends of the Napa River, Napa Valley Grape Growers, Resource Conservation District, Napa-Sonoma Mosquito Abatement District, and the Region II Water Quality Control Board.

Task IIIb: Solicit additional requests from landowners in Stewardship watersheds for participation as a demonstration site, as described in Task IIIa, and select from among the applications a minimum of two demonstration sites, distributed about the Napa River watershed. If the sites chosen have relatively low budgets, additional sites may be selected by the Guidance Committee.

Task IIIc: In coordination with the cost sharing program established by the Flood Control and Water Conservation District using funds from the Watershed Assessment parcel tax, provide funds from a block grant of $75,000 to augment cost sharing for landowners whose projects directly address the stressors and species of concern in the CALFED program. An eligibility form will be developed and submitted to CALFED for content approval before being circulated among the public for applications.

Task IIId: Integrate the demonstration projects into the monitoring network to specifically track the progress made in stabilizing banks, adjusting flood stage, wetland development, morphological adjustments, spawning habitat change, and vegetation stabilization. In cooperation with the Department of Fish and Game, conduct fish species distribution and habitat assessment at appropriate times during the year.

Products: Guidance Committee criteria list (month 3) and application for cost sharing (month 3) and a separate criteria list and application for demonstration site selection (month 4); list of applicants for demonstration sites, and final selected sites (month 6); site development plans (month 8); as-built site descriptions for both cost share sites and demonstration sites (month 12); fish species distribution and habitat assessment report (month 12).

Monitoring for this project is to be combined with the existing monitoring program of the District and with other regional monitoring programs presently underway, including the SFEI and RMP programs. To the extent appropriate, the program will be developed to be compatible with the IEP monitoring effort in the Delta. The existing protocols and Quality Assurance Plan of the Napa River watershed monitoring program will be used to monitor the success of individual projects, in addition to overall watershed monitoring. Present parameters involved are water temperature, electrical conductivity, salinity in the lower River, erosion rates of bed and bank materials in tributary streams, vegetation change, bird inventories, fish habitat, stream flow rates and stage, rainfall, insolation, evapotranspiration. Data from the monitoring program is entered into an MS Access database for storage, report generation, and use in a pcARC/INFO GIS located at the District offices.

Location and/or Geographic Boundaries of Project: This project will address the Napa River watershed, from Mt. St. Helena to Carquinez Strait, in Napa County and Solano County, all within the boundaries of the District (Attachment).

Ecological/Biological Benefits

This project will provide benefits to water quality in the Napa River and estuary, and in San Pablo Bay. It will increase tidal seasonal floodplain freshwater wetland habitat in the Huichica Marsh and in tributary streams to the Napa River. It will also provide improvements in instream and shaded riverine aquatic habitats in a minimum of one-third of the tributary streams and selected reaches of the Napa River upstream of the City of Napa. The project will also provide improvement in sediment balance in the watershed, with accompanying geomorphic stabilization of streams and riparian corridor vegetation diversity and extent. Indirect benefits expected will be lower maintenance costs for riparian landowners and managers, increased open space, and increased property values for neighbors.

Through habitat enhancement and expansion, the program will increase available spawning, feeding and sheltering habitat for steelhead. Improved riparian corridor and floodplain wetlands are also expected to benefit resident and migratory avian species of concern, as well as the endangered California freshwater shrimp.

"Levee wars" that started in the last century have culminated in a river system with a chaotic mix of river control mechanisms along the length of the River, and in some of the tributaries. Both private and public diversions and levees have been constructed, the accumulated effect of which is to constrain the river and its riparian corridor to approximately one third of its optimum morphological width for much of its length. The Napa Valley has also been extensively drained in the last century, eliminating nearly all of the sloughs and extensive wetlands that once covered the Valley floor. Combined with increasing agricultural and urban development, the narrowed channel and loss of wetlands has greatly changed the River and its major tributaries. It now regularly scours extensively on both bed and banks, generating large amounts of sediment that settle in the lower River and estuary, only to be stirred and moved by the tides during the dry season. Removal of tidal wetlands in the lower river by dike construction in the past 70 years has resulted in a much smaller area to disperse the sediment, exacerbating losses in all types of riverine and estuarine-related complex habitats in the system. Dredging in the lower reaches combined with hydrograph and channel alterations has caused the Napa River at Oak Knoll to incise over ten feet since 1965, separating the River from its former floodplain. Additional excess sediment is generated by other human activities away from the channels: the development of roadside ditches, unsurfaced roadways, and recreational trails; construction; agriculture; and wildfire. While much attention has been given to the 11% of the watershed now in winegrapes, relatively little assistance has been available to address the other 89% of the watershed. In cooperation with landowners, this project will restore portions of the Napa River and reduce erosion and sedimentation through demonstration projects in which levees will be removed and floodplain functions restored. Watershed practices that will reduce erosion and sedimentation from upland sources will also be demonstrated.

The Napa River watershed community, under the leadership of the District, generated a watershed management plan published as the Napa River Watershed Owner's Manual. The plan establishes nine objectives to attain the goal of maintaining a sustainable river ecosystem: *promote stream stabilization using natural processes; promote contiguous habitat; increase biological diversity; increase migratory and resident fish habitat; coordinate natural resource protection and planning efforts; encourage land stewardship; reduce soil erosion; promote sustainable land use concepts; and promote and improve water management.* To date, the community has enacted an innovative erosion control ordinance for all land disturbance over 5% slope, created a parcel tax for watershed management, formed a Community Coalition for Floodplain Management, moved toward wetlands enhancement with treated wastewater, formed the Napa Sustainable Winegrowing Group, and formed a cooperative Water

Coalition to address groundwater and surface water supplies.

Linkages.

The proposal builds upon the work already completed under the current Napa River Watershed Stewardship CALFED grant. Additional restoration and hydrologic modeling work will be done and, stewardship groups will be supported and initiated.

ERP strategic objective and target(s) that this project addresses	Page numbers from the February 1999 version of ERP, Volumes I and II
Identify and prioritize essential fish habitats	162
Facilitate development and implementation of restoration plans	162
Determine the abundance and distribution of steelhead populations	229
Temperature monitoring	64
Reduction in water temperatures through providing shade	64

System-Wide Ecosystem Benefits.

The Napa River is the only healthy steelhead habitat that does not have large pumps that the fish have to swim by.

Compatibility with Non-Ecosystem Objectives.

Additional benefits of the project will be to provide bank stability through facilitating stream restoration projects, engaging community members and agencies in a long term educational process. Hydrologic modeling efforts can help with flood control efforts and education.

Technical Feasibility and Timing

Most of the work done in this project will be outside of permit requirements, except for some of the demonstration site work and work done by landowners in the cost sharing program. Landowners and/or managers will be responsible for acquisition of all necessary permits for any given project that is part of this program. Streambed alteration agreements with the Department of Fish and Game will be handled through the new pilot 1603.5 process established by the Legislature through the Watershed Planning Act of 1995. The pilot program applies to Napa County only, and is intended to evaluate the effectiveness of a watershed plan constructed by landowners and agencies to stand as a pre-approved streambed alteration agreement, provided that the landowner agrees in writing to Fish and Game to follow the plan as written and is proposing nothing that is not already considered in the plan development. Some of the projects will take place under the aegis of the Flood Control District cost sharing program and will follow the guidelines and rules established for it. Projects that may require Clean Water Act 404 permits will only be undertaken if the project qualifies for one of the nationwide permits presently authorized. Local Riparian and Floodway regulations and Conservation regulations requirements will be adhered to, with the assistance of the District and the Natural Resources Conservation Service. Any project that may fall under the jurisdiction of the Endangered Species Act will be handled as necessary through a Section 7 or Section 10 consultation, depending on site and project specifics. The District Board of Directors and counsel will investigate projects as necessary to determine categorical exemption status under CEQA guidelines. The District will work closely with the Napa County Land Trust to ensure that landowners wishing to transfer easements as part of their contribution will be able to do so through the Land Trust, or with Land Trust assistance.

Monitoring and Data Collection Methodology

Biological/Ecological Objectives.

The Napa River has been on a recovery path since its low point in the 1960's, when the last of the native salmon were extirpated from the system by severe water pollution and habitat destruction. Steelhead trout have survived as a remnant population of two hundred (from an estimated run of 6,000) that is presently in need of higher quality and more extensive spawning areas for recovery to a significant population. A nascent population of fall run Chinook salmon have taken up residence in the watershed in those few areas available for spawning. These fish are "strays" from hatchery releases in Carquinez Strait, where they were released to avoid the pumps in the Delta, but are thought by some to have the capacity to re-establish a local population of limited number if sufficient survival rates can be maintained for at least a decade. Whereas the chemical and wastewater pollution of earlier years has been effectively dealt with, excess sediment supply is still a critical stressor on the salmonid population, as it is also to the spawning and rearing areas of the River in the estuarine zone upstream of San Pablo Bay, populated by Delta smelt, splittail, green sturgeon, and striped bass. The River has been prioritized as an impaired water body by the U.S. EPA and the Region II Water Quality Control Board because of the sediment production. The excess sediment generated in the watershed suffocates spawning areas, fills deep pools, increases turbidity in the stream and estuary, carries with it nutrients that bring significant algal blooms during the summer and fall, and changes the morphological balance of the streams and River toward more unstable conditions.

Monitoring Parameters and Data Collection Approach.

Monitoring for this project is to be combined with the existing monitoring program of the District and with other regional monitoring programs presently underway, including the SFEI and RMP programs. To the extent appropriate, the program will be developed to be compatible with the IEP monitoring effort in the Delta. The existing protocols and Quality Assurance Plan of the Napa River watershed monitoring program will be used to monitor the success of individual projects, in addition to overall watershed monitoring. Present parameters involved are water temperature, electrical conductivity, dissolved oxygen, salinity in the lower River, erosion rates of bed and bank materials in tributary streams, vegetation change, bird inventories, fish habitat, stream flow rates and stage, rainfall, insolation and evapotranspiration.

Data from the monitoring program is entered into an MS Access database for storage, report generation, and use in a pcARC/INFO GIS located at the District offices. Annually, an advisory team will assess the data and prepare a report on the status of the watershed. The team will be made up of local interest groups such as the Audubon Society and Friends of the River; local agency personnel from the Flood Control and Water Conservation District, Agricultural Commissioner's Office, and Mosquito Abatement District; state agency personnel from the Department of Fish and Game and the Regional Water Quality Control Board; and federal agency personnel from the USDA NRCS and U.S. EPA. This report will be made available for general distribution through the media developed in Task *IIh*. It will also be available to community members working on the next edition of the Napa River Watershed Owner's Manual.

Data Evaluation Approach.
The approach will be developed by a scientific advisory panel that will include a suite of scientific advisors.

Table 2. Monitoring and Data Collection Information

Biological/Ecological Objectives			
Hypothesis/Question to be Evaluated	Monitoring Parameter(s) and Data Collection Approach	Data Evaluation Approach	Comments/Data Priority
Local communities have the capability with minimal support to have significant environmental improvement in their watershed condition.	Sediment, water quality, hydrologic characteristics, riparian vegetation, fisheries population monitoring	The approach will be developed by a scientific advisory panel that will include a suite of scientific advisors.	Sediment, water quality, hydrologic characteristics, riparian vegetation

Local Involvement

Local Stewardship Watershed Groups
Napa County Agricultural Commissioner
Napa Sustainable Winegrowing Group
California Department of Fish and Game
California Department of Conservation
Napa County Flood Control and Water Conservation District
Pierce's Disease Task Force
US Environmental Protection Agency
Region II Water Quality Control Board
Private landowners
California Conservation Corps

Cost

Budget.

Table 3. Total Budget (CALFED funds only)

Task	Direct Labor Hours	Direct Salary and Benefits	Service Contracts	Material Costs	Miscellaneous and other Direct Costs	Overhead and Indirect Costs	Total Cost
Task 1	2600	52000	0	3800	4100	2300	62200
Task 2	2000	40000	0	4600	3900	3100	51600
Task 3	2150	46000	0	23000	0	8300	77300
Total Project Budget	**6750**	**138000**	**0**	**31400**	**8000**	**13700**	**191100**

Table 4. Quarterly Budget

Task	Quarterly Budget Oct-Dec 1999	Quarterly Budget Jan – Mar 2000	Quarterly Budget Apr – Jun 2000	Quarterly Budget Jul – Sep 2000	Quarterly Budget Oct – Dec 2000	Total Budget
Task 1	12440	12440	12440	12440	12440	62200
Task 2	10320	10320	10320	10320	10320	51600
Task 3	15460	15460	15460	15460	15460	77300
Total	38200	38200	38200	38200	38200	**191100**

Schedule.

Schedules for delivery of milestone products associated with key elements of each of the three segments of this proposal are listed at the end of each segment description under "Proposed Scope of Work."

Cost-Sharing

Task	Direct Labor Hours	Direct Salary and Benefits	Service Contracts	Material Costs	Miscellaneous and other Direct Costs	Overhead and Indirect Costs	Total Cost
Task 1							
CALFED	2600	52000	0	3800	4100	2300	62200
RCD	1150	22880	0	0	1100	550	24530
Other	660	8250	0	2750	0	0	11000
Task 2							
CALFED	2000	40000	0	4600	3900	3100	51600
RCD	1150	28600	0	4400	1100	1100	35200
Other	80	0	0	2200	0	1100	3300
Task 3							
CALFED	2150	46000	0	23000	0	8300	77300
RCD	575	10280	0	0	0	1100	11380
Other	2290	8250	0	19000	0	0	27250
Total Project Budget							
CALFED	**6750**	**138000**	**0**	**31400**	**8000**	**13700**	**303760**
RCD	**2875**	**61760**	**0**	**4400**	**2000**	**2750**	**71110**
Other	**3030**	**16500**	**0**	**23950**	**0**	**1100**	**41550**
							303760

"Other" support will be supplied by the collaborators listed in the first section of this proposal, and will be in the form of in-kind services, personnel hours, and materials and equipment use. Existing programs already funded which will be supportive of this program include a $45,000 watershed planning grant from the California Department of Fish and Game, an $8,000 restoration grant from the California Department of Fish and Game, a $90,000 Sustainable Agricultural Grant from CWA Section 205 funds.

Applicant Qualifications

Dennis Bowker, Resource Conservationist, Napa County Resource Conservation District
Proposed role in Napa River Watershed Stewardship Project: **Project Manager**

Highlights of work at the District:

- Co-facilitated the Huichica Creek Stewardship with Phillip Blake, Natural Resources Conservation Service (NRCS). The Huichica Creek Stewardship was selected by the U.S. Senate as one of nine model watershed management programs in the country.
- Developed Land Stewardship Watershed Management training program.
- Assisted with development of watershed training program with U.S. EPA OWOW through the U.S. Office of Personnel Management training center in Lancaster, PA.
- Worked as a training and watershed program facilitator for the Arizona Dept. of Environmental Quality, Hawaii Dept. of Health, Rhode Island NRCS, West Virginia NRCS, Massachusetts Dept. of Environmental Quality, and U.S. EPA Regions I and IX.
- Developed and delivered training programs for State Water Resources Control Board for CZARA and non-point source programs.
- National Wetlands Award from Environmental Law Institute and EPA.
- Hal Wise award from Region IX, U.S. EPA.
- Principal editor of Napa River Watershed Owner's Manual.

Kathleen Edson, Program Coordinator, Napa County Resource Conservation District
Proposed role in Napa River Watershed Stewardship Project: **Administration and Monitoring Coordinator**

Highlights of work at the District:

- Project Manager for Teaching Resources Exchange Program (TREX) since beginning of EPA 319 grant in 1995 (Region II Water Quality Control Board, Leslie Ferguson Contract Mgr., tel: 510-286-0428). TREX is implementing recommendations from the Napa River Watershed Owner's Manual. Major parts of the TREX program are the Napa River Watershed Volunteer Monitoring Program, Stewardship development, and the AmeriCorps Watershed Project. Responsibilities include budget management and billing, volunteer coordination and training, report production, and monitoring protocol development.
- Volunteer coordination and general administrator for District office.
- Assisted in production of Owner's Manual.

Ann Buell, Watershed Program Facilitator, Napa County Resource Conservation District
Proposed role in Napa River Watershed Stewardship Project: **Geographic Information Systems (GIS) Specialist and Data Management Coordinator**

Highlights of work at the District:

- Developed GIS for Napa River Watershed Volunteer Monitoring Program and for other District projects: solicited and received existent GIS data layers from private and public sources, and created original GIS data layers for District.
- Expanded District GIS software capabilities through donations from ESRI (Environmental Systems Research Institute, Inc.): ArcView 3.0 upgrade, ArcView Spatial Analyst extension, and ArcView Network Analyst extension.
- Upgraded and networked office computer system.
- Assisted in development of Napa River Watershed Volunteer Monitoring Program: protocol development and implementation, and training of volunteers.

- Designed relational database for Volunteer Monitoring program (MS Access).
- Represents the District to the local community through slide presentations and presence at fairs.

Previous relevant experience:

- Inventoried riparian vegetation on 11 streams in the eastern Sierras for Center for Conservation Biology (Stanford University).
- Published two vegetation-related papers in referred journals (*Conservation Biology* and *Madroño*).

Bob Zlomke, Hydrologist, Napa County Resource Conservation District

Proposed role in Napa River Watershed Stewardship Project: **Hydrologist**

Highlights of work at the District:

- Coordinated Napa River survey, 1995/96 (142 cross sections covering entire main stem of river above Trancas Street, with level control).
- Trained volunteer surveyors and developed spreadsheet applications for survey data entry.
- Developed computer programs to reduce survey notes and format them for model input.
- Developed Napa River model using Mike 11 software, 1995-96.
- Assisted Napa County Flood Control District staff with ALERT system stream gage placement and planning, 1996-97.
- Carried out pilot work of floods on Napa Creek system using HEC-1 with Napa City ALERT system data, 1997.
- Developed preliminary modeling plans for Napa Marsh restoration, in cooperation with California Department of Fish and Game.
- Developed experimental plans to evaluate the usefulness of GeoSAR radar data for hydrologic modeling purposes; District experiments are currently underway, linking hydrologic models with GIS tools in floodplain modeling.
- Prepared flow estimates for sub-watersheds of Napa River, using aerial photographs, maps, and NRCS program TR-55, 1993.

Previous relevant experience:

- Wrote course materials and adapted computer models for estuarine modeling course, Mare Island Project.
- Assisted students in probabilistic systems analysis as Teaching Assistant in Civil Engineering, U.C. Davis, 1993-95.
- Authored *Water Quality Modeling in the Sacramento-San Joaquin Delta,* Center for Environmental and Water Resources Engineering, Department of Civil and Environmental Engineering, University of California, Davis, Report No. 95-1, February 1995.

Julie Haas, Assistant Hydrologist, Napa County Resource Conservation District

Proposed role in Napa River Watershed Stewardship Project: **Assistant Hydrologist**

Highlights of work at the District

- Surveyed cross-sections of Huichica Creek.
- Conducted fish habitat survey on Dry Creek.
- Derived modeling parameters from air photos and USGS quad sheets for use in hydrologic modeling using HEC-1, as part of a current experiment using GeoSAR radar data.

Previous relevant experience:

- Completed a riparian vegetation investigation of the Shasta River basin, and monitored water quality on the Klamath and Shasta Rivers. Managed and analyzed the data generated.

Jennifer O'Leary, Biologist, Napa County Resource Conservation District

Compliance With Standard Terms and Conditions

We have in place all policies necessary to meet the requirements to comply with state and federal funding. We agree to the terms and conditions as set forth in Attachments D and E of the RFP. We will submit appropriate forms at the time of contract completion.

Napa County Resource Conservation District

1303 JEFFERSON STREET, SUITE 500B • NAPA, CA 94559 • PHONE (707) 252-4188 • FAX (707) 252-4219

April 12, 1999

The Board of Supervisors
County of Napa
1195 Third Street
Napa, California 94559

To the Board:

We are writing to inform you that the Napa County Resource Conservation District is applying for a CALFED grant entitled Napa River Watershed Stewardship Year Two.

Enclosed you will find the executive summary that was included with the proposal request. We look forward to continuing to work with the County of Napa on stewardship, modeling, restoration and assessment efforts in the Napa River Watershed.

Sincerely,

Kathleen Edson

Kathleen Edson
Program Coordinator

Napa County Resource Conservation District

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April 12, 1999

Jeff Redding
Planning Director
Napa County Planning Department
1195 Third Street
Napa, California 94559

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